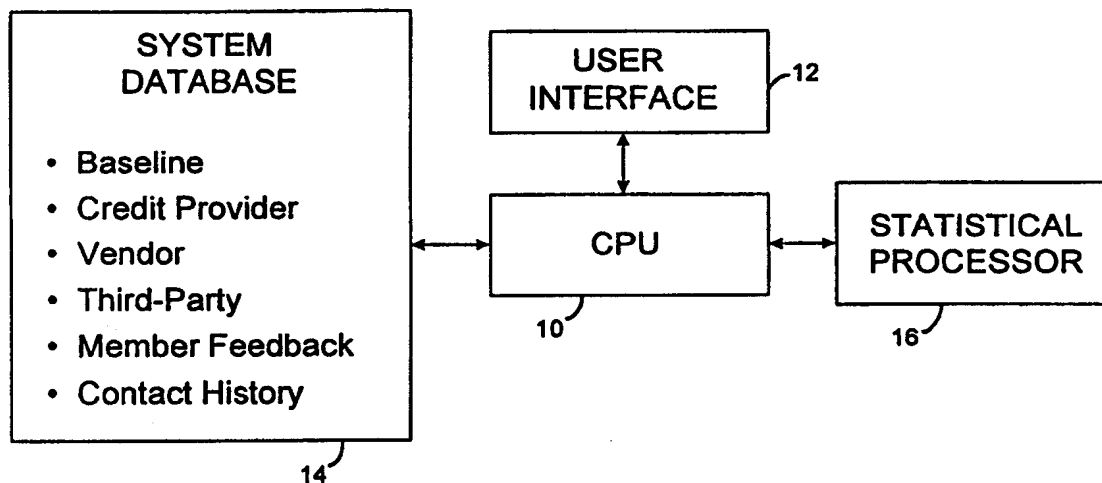




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(54) Title: METHOD AND APPARATUS FOR TARGETING OFFERS TO CONSUMERS

**(57) Abstract**

A computer based modeling system and method are provided for individually targeting different consumers to receive different offers from a plurality of different vendors. A statistical processor (16) receives data such as transaction, financial and demographic information from a consumer credit provider (20). The processor (16) also receives data like market research, product and customer information from different vendors (22) sponsoring the offers. The statistical processor analyzes the information from the consumer credit provider (20) and the different vendors (22) to assign individual offers to individual consumers based on a probability that an offer assigned to a consumer will be accepted by the consumer. Other sources of information for the statistical processor include market research, demographic information and consumer information from third party (24). Moreover, the processor can analyze feedback data (32) indicative of consumer acceptance and usage of the services provided under the offers.

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METHOD AND APPARATUS FOR TARGETING
OFFERS TO CONSUMERS

BACKGROUND OF THE INVENTION

5 The present invention relates to a method and a
computer based modeling system for individually
targeting different consumers to receive different
offers from a plurality of different vendors. In an
illustrated embodiment, consumers are offered
memberships in brand name loyalty programs, and
10 billed for such memberships by a consumer credit
provider such as a utility, mortgage company, credit
or debit card company, bank or other institution
which bills its customers on a regular schedule.

15 In the past, direct marketers used mailing
lists to contact potential purchasers of various
products and services. Such mailing lists or "name
lists" were obtained from various sources, such as
subscribers to magazines, credit card holders,
telephone directories, and the like. In the early
20 days of direct marketing, scientific targeting of
consumers was not particularly sophisticated, and
response rates to mass mailings, for example, were
typically low.

25 More recently, telemarketing has provided a
vehicle for direct marketers to reach consumers, and
has been quite successful. As with direct mailing,
telemarketers rely on name lists to obtain consumer
contacts.

There are two well known types of name lists. Demographic, or compiled lists are based on public information such as sex, estimated income (e.g., averaged by zip code), birth date, marital status and the like. Psychographic lists (also known as response lists) obtain names due to consumer responses. For example, such responses may comprise subscribing to a magazine offer, ordering from a mail order catalog, contributing to a charity, or completing and returning a warranty card from a purchased product. Various third party resources are available to direct marketers in order to obtain name lists and other information about consumers. For example, R. R. Donnelley & Sons is a company that provides various name lists and market research services. Polk Co. is a resource of psychographic lists, and obtains information by inserting questionnaires into product boxes. Generally, such questionnaires are presented in the form of a warranty response card, and ask for personal information over and above that needed to fulfill the product warranty.

More recently, techniques such as "customer profile modeling" have been developed to discern the traits of a typical buyer or donor. For example, a charity may want to rent the mailing list of a magazine. The charity would first pay the magazine to search its list for the charity's 100,000 best donors. If the search found that most of those big

donors who also subscribed to the magazine were male, had ordered their subscription in response to a magazine insert, and had paid by check, the charity would then rent more names from the magazine list that fit that profile.

A similar prospecting tool is known as "mailed regression." A retailer might send its catalog to a random sampling of magazine subscribers. It would then rent names of additional subscribers who matched the profiles of those who placed orders.

Another technique which was pioneered by a company known as SafeCard Services, Inc. in the 1970's is the direct marketing promotion of services to credit card holders. Thereafter, a company known as Comp-U-Card International recognized the consumer appetite for bargains and capitalized on this fact by expanding the industry's membership service offerings to include discount shopping, travel, auto and dining clubs.

Past solicitations of credit card holders for "club memberships" providing various benefits have been targeted to various segments of an issuer's credit card portfolio. Such membership programs have carried unbranded labels; i.e., they have not been associated with a particular brand name well known to the consuming public. Thus, prior "shopper's advantage" programs would offer brand name products from many different manufacturers with a low price guarantee.

Moreover, the process of targeting consumers for membership club offers has only focused on one specific offer. The sophistication of such targeting has not been such that a consumer group
5 could be segmented into subgroups to which different membership offers would appeal. This has adversely affected the response rates to such offers and thereby increased the cost of obtaining each sale.

It would be advantageous to provide a computer
10 based modeling system and methods for more successfully targeting vendor offers to consumers. It would be further advantageous to provide such a system and method for segmenting and prequalifying consumers using a predictive modeling approach in
15 order to target appropriate club offers to consumers. A particularly advantageous approach to such a marketing scheme would be to provide a capability for matching each of a plurality of consumers to at least one of a plurality of vendor
20 offers, such as brand name loyalty programs, based on the probability that the particular consumer will accept the offer.

The present invention provides a computer based modeling system and predictive marketing method
25 having the aforementioned and other advantages.

SUMMARY OF THE INVENTION

The present invention provides a computer based modeling system for individually targeting different consumers to receive different offers from a plurality of different vendors. A statistical processor is provided which receives at least two types of information, referred to as a "first input" and a "second input." It should be appreciated that the first and second inputs are not necessarily physical inputs, but merely inputs of data to a computer processor.

The first input to the statistical processor provides at least one of transaction, financial and demographic information from a consumer credit provider. The information provided pertains to the consumers. For example, the consumer credit provider may be a credit card or debit card issuer, a bank, a utility, a mortgage company, an Internet service provider, or any other entity that provides a continuity billing vehicle wherein consumers are billed on a regular basis.

The second input to the statistical processor provides at least one of market research, product and consumer information from each of the different vendors. Each vendor could comprise, for example, a different consumer product manufacturer or service provider which has a well known brand.

The statistical processor analyzes the information from the first and second inputs to assign individual offers to individual consumers. The assignment of offers is based on a probability
5 that an offer assigned to a consumer will be accepted by the consumer. In this manner, the computer based modeling system can target different consumers to receive offers from different vendors, with a high probability that the offers will be
10 accepted by those consumers receiving them. Instead of wasting marketing effort on consumers that may not be interested in a particular vendor offer, a list of consumers is segmented across different vendors, and only those services which each
15 individual consumer is most likely to be interested in are marketed to that consumer. In a preferred embodiment, each consumer is matched with at least one offer from the various offers presented by the plurality of different vendors.

20 A database of baseline information is accessible to the statistical processor. The baseline information is used in computing the probability that an offer assigned to a consumer will be accepted by the consumer. The baseline
25 information identifies consumer characteristics that correlate to each of the offers.

The statistical processor can compute the probability that an offer will be accepted by a particular consumer using single or multiple variate

regression analysis. In particular, the statistical processor may assign scores indicative of a correlation of each individual consumer to each offer. The offers will then be assigned to the consumers based on the scores.

In another embodiment, the statistical processor may analyze the information from the first and second inputs according to a first statistical process in a first attempt to assign an offer to a particular consumer. If the first statistical process does not result in the assignment of an offer to a consumer, the statistical processor analyzes the information according to a second statistical process in another attempt to assign an offer to the particular consumer. In an illustrated embodiment, the first statistical process comprises a multiple regression analysis and the second statistical process comprises a LOGIT analysis. Other types of analyses can be used instead of these, such as a chi-square analysis, or any other statistical analysis well known in the art.

A third input to the statistical processor can also be provided. This input provides at least one of market research, demographic information and consumer information from a third party information source. For example, lifestyle information, life stage information, survey data, magazine offer respondents, catalog shoppers, magazine subscribers, and other demographic and/or telephone and address

information can be provided by third party
information sources such as R. R. Donnelley & Sons,
Polk Co., and the like. In such an embodiment, the
statistical processor will analyze the information
5 from the first, second and third inputs to ascertain
the probability that an offer assigned to a
particular consumer will be accepted. Based on this
probability, individual offers will be assigned to
individual consumers.

10 A fourth input can be provided to the
statistical processor for providing information
indicative of past consumer responses to the offers.
Such information can comprise an indication of
whether or not a particular consumer accepted a
15 particular offer made. The information can further
indicate how much a consumer has used a particular
offer that was accepted (e.g., over a defined period
of time). This information provides feedback used
by the statistical process to refine the future
20 assignment of offers to consumers.

A method is provided in accordance with the
invention for individually targeting each of a
plurality of different consumers to receive at least
one particular offer from a plurality of different
25 merchandise and service providers having a
recognized brand name (the "vendors"). At least one
of transaction, financial and demographic
information pertaining to each of the individual
consumers is provided from a consumer credit

provider. At least one of market research, product and consumer information is provided by each of the different vendors. The information provided is statistically analyzed in order to assign particular offers to different consumers based on a probability that an offer assigned to a consumer will be accepted by the consumer. In an illustrated embodiment, the offers comprise offers for membership in brand name loyalty programs.

A first statistical process may be used during the analyzing step in a first attempt to assign an offer to a particular consumer. A second statistical process is used if the first attempt is unsuccessful. For example, such statistical processes may comprise a multiple regression analysis and a LOGIT analysis, or any other suitable statistical analysis technique.

The method can comprise the further step of providing at least one of market research, demographic information and customer information from a third party information source. In such an instance, the information from the consumer credit provider, the different vendors, and the third party information source is all analyzed in order to ascertain the probability that particular consumers will accept particular offers, and to assign individual offers to individual consumers.

The method can comprise the further step of providing information indicative of past consumer

responses to the offers in order to refine the future assignment of offers to consumers. The past consumer responses can include acceptance of the offer or usage of the benefits provided thereby.

5 In an implementation where the offers comprise offers for membership in brand name loyalty programs, the vendors are the owners or licensees of the brand names. Moreover, the consumer credit provider renders bills for membership offers
10 accepted by the consumers. Thus, the consumer credit provider will advantageously be any provider of credit (or future credit) who can offer a continuity billing vehicle, wherein bills or
15 statements are sent to the consumers on a regular basis.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a block diagram of the computer based modeling system in accordance with the present invention;

5 Figure 2 is a more detailed block diagram illustrating the inputs to and outputs from the statistical processor of the computer based modeling system; and

10 Figure 3 is a flowchart illustrating the development of a baseline database for use by the statistical processor.

DETAILED DESCRIPTION OF THE INVENTION

The computer based modeling system and method of the present invention provide groups of consumer names segmented by offers to which the consumers are most likely to respond. In an illustrated embodiment, the offers comprise membership offers to brand name loyalty programs or "clubs" which offer various advantages to the consumers. Such advantages may include, for example, discounts to brand name merchandise where the brand corresponds to the membership club, coupons and rebates for merchandise which will be of interest to the club members, and free or discounted subscriptions to magazines which will be of interest to the club members.

Examples of such clubs are a kid's club under the "Sesame Street/Children's Television Workshop" brand, a sewing and crafts club under the "Simplicity" brand, an outdoor adventure club under the "Trailside" brand, and a gardening club under the "Burpee" brand. Computer based modeling is provided to target the different clubs to different consumers that may be interested in joining the club. The targeting is accomplished using predictive modeling techniques which can ascertain the probability that an offer will be accepted by an individual consumer based on information from various sources. The sources include consumer

credit providers, the vendors of the branded products and/or services, and third party information sources which supply various demographic and marketing information. This information, 5 coupled with field trials, is used to provide a database of baseline information on which the model is based. The model can be continuously refined by providing feedback indicative of consumer acceptance of offers and/or club members' use of the products 10 and services provided by the club.

The output generated by the model is particularly useful in telemarketing. Once a telemarketer has the assignments of different clubs to individual consumers (e.g., individual persons or 15 families), the consumers are contacted and offered the club most likely to be accepted by the particular consumer. It should be understood that more than one club may be offered to each consumer, preferably at different times. The assignment of 20 different clubs to consumers can be ranked, so that the consumer will be offered the most likely to be accepted club first, then the next most likely to be accepted club, and so forth.

Figure 1 is an overview of the computer based modeling system. A central processing unit (CPU) 10 25 is provided at the heart of the system, and communicates bidirectionally with a user interface 12, system database 14, and statistical processor 16. The user interface can comprise any standard

user interface, such as a keyboard, mouse and display operating under the Windows environment or other graphical user interface. The purpose of the user interface is to control the operation of the computer modeling system, and to enable the input and output of the desired information and generation of desired reports. Such user interfaces are well known and will be easily implemented by those skilled in the art.

The system database contains various categories of information. One category is baseline information, which is developed during a premarketing test in which a statistical sampling of consumers is contacted in accordance with well known marketing techniques. For example, if one of the offers to be made is for a club directed toward children, a sampling of consumers will be contacted to determine which are most receptive to a club offering services directed toward children. The demographic, financial, lifestyle and other available information relating to the consumers expressing interest in such a club is compiled into a model indicative of the characteristics of persons most likely to respond to the club offer. These characteristics are then stored as baseline information in the system database 14.

Information used to build the baseline database and to subsequently match offers to consumers is provided by various sources in accordance with the

invention. One source is the credit provider that will be responsible for billing consumers for the club memberships. Such credit providers can be any entity that provides regular billing (i.e., a
5 "continuity billing vehicle"). Examples are gas, oil, and electric utility companies, cable television operators, mortgage companies, telephone companies, credit card companies, banks which send monthly checking accounts and/or debit card
10 statements, Internet service providers, oil companies sending monthly statements for gasoline credit cards, retailers such as department stores, and the like. Information provided by the credit providers is quite comprehensive. It includes
15 transaction information, such as what a particular consumer bought with their credit card over a specific time period (e.g., the past 12 months). Financial information is provided in the nature of when the card was last used, the consumer's open
20 balance, how much has been spent over a specified period of time, how long the consumer has been a card holder, whether the consumer has responded previously to direct marketing efforts, the type of card (e.g., silver, gold or platinum MasterCard or
25 Visa), the consumer's credit worthiness, payment history, and other relationships with the financial institution that sponsors the card. Demographic information is also supplied by the credit provider, including the consumer's age, sex, income, number of

people in family, whether they maintain a joint or single account, whether the consumer is a home owner, the status of home equity loans, personal loans, and recreational vehicle loans, the
5 geographic area in which the consumer lives, works and spends money, and where available, the consumer's race. Additionally, the prior contact history and response to vendor offers may be supplied. The vast amount of information supplied
10 by the credit provider is stored in the system database 14.

Another category of information stored in the system database is provided by vendors of the offers to be made. For example, if a Sesame Street brand
15 loyalty club is to be offered, information will be provided by the Children's Television Workshop (and/or its advertisers and licensees of the Sesame Street brand) concerning its current customers, products and the like. More particularly, the
20 computer system and method of the present invention will look to the vendor for providing focus group research, syndicated research (e.g., from a source such as Nielson), a list of current and past customers, transaction level information indicative
25 of how much each customer spends and on what, the demographics and geographic areas in which the vendor's current and past customers live, survey information obtained from customers of the vendor's brand, the vendor's list of advertisers, licensees,

retail outlets, product line information, and the like.

Third party information may also be provided. This includes information from consumer research organizations such as R. R. Donnelley & Sons, Polk Co., and the like. Such information may include lifestyle information on individual consumers and households, life stage information, survey data indicative of an individual consumer's interests, hobbies, health ailments and the like, information as to which consumers respond to different types of offers such as magazine offers, coupons, rebates, etc., magazine subscribers, catalog shoppers, and other available demographic, telephone and address information. Third party information may also include input from the direct marketing association's telephone and mail preference service, which promises to remove names from telemarketing and direct marketing lists upon request. Such information is useful to comply with the law prohibiting solicitation of consumers who have requested not to be solicited. Such third party information is stored in the system database 14.

Another category of information stored in the system database is member feedback information. Once a consumer accepts an offer such as a club membership, the fact that the offer has been accepted is recorded in the system database. Moreover, the consumer's use of the club benefits is

monitored to determine which consumers use which
benefits and how much use different categories of
consumers make of the clubs. This information is
useful in refining the model for future assignments
5 of offers to consumers.

The statistical processor 16 is used to refine
and use the model to generate consumer targets for
the various vendor offers. The consumer targets are
individually contacted via telemarketing and/or
10 direct marketing techniques well known in the art.
The operation of the statistical processor is
illustrated in greater detail in Figure 2.

As shown in Figure 2, the credit provider
information 20, vendor information 22 and third
15 party resources 24 (all of which can be output from
the system database 14) is provided to a front end
26 of the statistical processor. The front end 26
applies a statistical analysis such as multiple
regression and/or LOGIT, chi-square or the like to
20 the input data. Single or multiple variate
regression analysis is a powerful statistical
technique which enjoys low predictive error and high
discrimination. It identifies the combination of
characteristics that best predicts specific consumer
25 behavior. The result of the multiple regression
analysis is a regression equation, which is a tool
used to store and rank customers or prospects.

The LOGIT regression, also known as the Rodbard
of Probit regression is a type of discrete choice

analysis that market researchers use to predict how well a product or service will be received in the market. Analogous in many ways to conjoint analysis, discrete choice analysis differs by having
5 respondents choose one of several product packages or options presented. Discrete choice modeling can be used to answer various marketing questions. It can provide direct predictive estimates of market share for a new or existing product. It can also be
10 used to make estimates of future market demand. Many different data collection techniques can be used to implement a discrete choice model. Examples include mail and telephone surveys.

The various information provided about each
15 individual consumer is statistically matched to the baseline information, in order to determine which consumer is most likely to accept which vendor offer. The matching is provided by a statistical back end 28 which assigns offers to consumers based
20 on the statistical analysis provided by front end 26. The back end 28 segments the consumers by various vendor offers (e.g., branded clubs) that statistically would be most interesting to the consumer. Then, the clubs which match each consumer
25 are sorted by the probability that the consumer will accept a membership in the club. The results of the sorting are stored, as indicated diagrammatically by bins 34, where each bin corresponds to a different offer assigned to the particular consumer based on

the probability that the consumer will accept the offer (e.g., for membership in a particular branded club).

5 The results of the segmentation and sorting for all of the individual consumers whose data is analyzed is provided (e.g., in a telemarketing list form) for ultimate marketing to the consumers, as indicated at box 30. As noted above, such marketing may comprise telemarketing, direct mail marketing,
10 or any other marketing technique known in the art.

 The results of the marketing efforts are reported to a member feedback database 32, which maintains a record as to which consumers accepted or rejected which offers. The member feedback database
15 is also supplemented with information regarding the use of the offered services by the members over time. For example, a consumer may accept membership in a club, pay the club dues, but never use the membership benefits. Another member may use the
20 membership benefits extensively. Other members will use some of the benefits but not all. All of this information is compiled in the member feedback database, and fed back to the statistical processor front end 26 for subsequent analysis and use in
25 refining the baseline information that is used in targeting subsequent consumers. By using the feedback data, the accuracy of the profiles which define characteristics of consumers most likely to

accept and use a particular offer is constantly improved.

Figure 3 is a flowchart illustrating the initial development of the baseline database.

5 Consumer information (e.g., credit provider, vendor and third party resource information) is provided from a consumer information database 40 to a scoring model development process 42. The scoring model development process segments consumers according to
10 the consumer information based on initial hypotheses as to which consumers would be interested in a particular vendor offer under consideration. The consumers with the highest likelihood of positively responding to an offer (i.e., those with the highest
15 "scores") are contacted via telemarketing or otherwise. Those that accept the offer are provided with the opportunity to use the benefits provided under the offer. The actual use by the consumers is analyzed at box 44, and a profitability analysis is
20 undertaken at box 46. It is noted that the benefit usage analysis may simply be an analysis of which consumers accepted the offer. Alternatively, the benefit usage analysis may be conducted over a period of time which enables the study of which
25 consumers use which of the benefits offered under the program. The profitability analysis takes various factors into account, such as the number of consumers that have to be contacted in order to generate a sale and the number of sales generated

overall. The results of the benefit usage analysis and profitability analysis are analyzed at box 48, and if the program offered to the consumers (e.g., a club membership) is found to be profitable, the
5 program will be rolled out for full scale marketing.

As will be appreciated by those skilled in the art, the scoring model development must be based on a statistically significant sample of consumers. Once a successful model is developed for a
10 particular program, the program is added to other programs which are targeted to individual consumers according to the probability that each consumer will accept the particular program offered.

It should now be appreciated that the present
15 invention provides a method and apparatus for individually targeting each of a plurality of different consumers to receive at least one particular offer from a plurality of different vendors. The invention provides a vast improvement
20 over prior art methods, in which a list of consumers was analyzed and filtered on the basis of one offer only. In the prior art, if a consumer was not found to be qualified for an offer, no offer would be made to that consumer. With the present invention,
25 different offers are available, and the goal is to make at least one offer to each consumer. Thus, the present invention provides a substantially greater name utilization, wherein 80 percent or more of the names provided by a credit provider can routinely be

marketed at or above the same profitability levels, instead of something on the order of only 20 to 50 percent, as in the past.

5 With the present invention, a default offer can also be provided. For example, there may be an individual for whom none of a plurality of specialized brand name loyalty clubs is particularly appropriate. This individual can be offered a default club of general interest, such as a nature
10 club. The provision of a default offer can theoretically increase the name utilization to 100 percent.

Once the consumer names are matched to specific offers, the offers can be marketed using
15 telemarketing or direct marketing techniques. For example, where a credit provider such as ABC bank is used to provide billing for a brand loyalty club for XYZ brand, the telemarketer can approach the sale by explaining that the telephone call has been endorsed
20 by both ABC bank and XYZ brand, or by the XYZ brand alone. Since both of these names are well recognized by the consumer, the credibility of the telemarketer is improved. The telemarketer can then explain how acceptance of the offer will benefit the
25 consumer. For example, discounts, product availability and convenience are all reasons that a consumer may wish to join a name brand loyalty club. A free trial offer (e.g., 30 days) can then be granted, after which the consumer will be billed by

the credit provider on a regular billing to the consumer. The "membership dues" or other payment for the offer can, of course, be billed all at once or on a periodic basis, such as monthly.

5 Although the invention has been described in connection with various specific embodiments, it will be appreciated that numerous adaptations and modifications may be made thereto without departing from the scope of the invention as set forth in the
10 claims.

WHAT IS CLAIMED IS:

1. A computer based modeling system for individually targeting different consumers to receive different offers from a plurality of different vendors, comprising:

a statistical processor;

a first input to said statistical processor for providing at least one of transaction, financial and demographic information from a consumer credit provider, said information pertaining to said consumers; and

a second input to said statistical processor for providing at least one of market research, product and customer information from each of said different vendors;

wherein said statistical processor analyzes the information from said first and second inputs to assign individual offers to individual consumers based on a probability that an offer assigned to a consumer will be accepted by the consumer.

2. A computer based modeling system in accordance with claim 1 further comprising:

a database of baseline information accessible by said statistical processor for use in computing said probability, said baseline information identifying consumer characteristics that correlate to each of said offers.

3. A computer based modeling system in accordance with claim 1, wherein said statistical processor computes said probability using a regression analysis.

4. A computer based modeling system in accordance with claim 3 wherein said statistical processor assigns scores indicative of a correlation of each individual consumer to each offer, and assigns offers to consumers based on said scores.

5. A computer based modeling system in accordance with claim 1 wherein said statistical processor analyzes the information from said first and second inputs according to a first statistical process in a first attempt to assign an offer to a particular consumer, and analyzes the information according to a

second statistical process if said first attempt is unsuccessful.

6. A computer based modeling system in accordance with claim 5 wherein said first statistical process comprises a regression analysis.

7. A computer based modeling system in accordance with claim 6 wherein said second statistical process comprises a LOGIT analysis.

8. A computer based modeling system in accordance with claim 1 further comprising:

a third input to said statistical processor for providing at least one of market research, demographic information, and consumer information from a third party information source;

wherein said statistical processor analyzes the information from said first, second and third inputs to ascertain said probability and assign individual offers to individual consumers.

9. A computer based modeling system in accordance with claim 8 further comprising:

a fourth input to said statistical processor for providing information indicative of past consumer responses to the offers;

wherein said statistical processor uses the information from said fourth input to refine the future assignment of offers to consumers.

10. A computer based modeling system in accordance with claim 1 further comprising:

a fourth input to said statistical processor for providing information indicative of past consumer responses to the offers;

wherein said statistical processor uses the information from said fourth input to refine the future assignment of offers to consumers.

11. A method for individually targeting each of a plurality of different consumers to receive at least one particular offer from a plurality of different vendors, comprising the steps of:

providing at least one of transaction, financial and demographic information pertaining to each of the individual consumers from a consumer credit provider;

providing at least one of market research, product and consumer information from each of said different vendors; and

statistically analyzing the information provided in the preceding steps to assign particular offers to different consumers based on a probability that an offer assigned to a consumer will be accepted by the consumer.

12. A method in accordance with claim 11 wherein said offers comprise offers for membership in brand name loyalty programs.

13. A method in accordance with claim 11 wherein a first statistical process is used during said analyzing step in a first attempt to assign an offer to a particular consumer, and a second statistical process is used if said first attempt is unsuccessful.

14. A method in accordance with claim 13 wherein said first statistical process comprises a regression analysis.

15. A method in accordance with claim 14 wherein said second statistical process comprises a LOGIT analysis.

16. A method in accordance with claim 11 comprising the further step of providing at least one of market research, demographic information, and customer information from a third party information source;

wherein the information from said consumer credit provider, different vendors and third party information source is analyzed during said analyzing step to ascertain said probability and assign individual offers to individual consumers.

17. A method in accordance with claim 16 comprising the further step of providing information indicative of past consumer responses to the offers to refine the future assignment of offers to consumers.

18. A method in accordance with claim 16 wherein said offers comprise offers for membership in brand name loyalty programs.

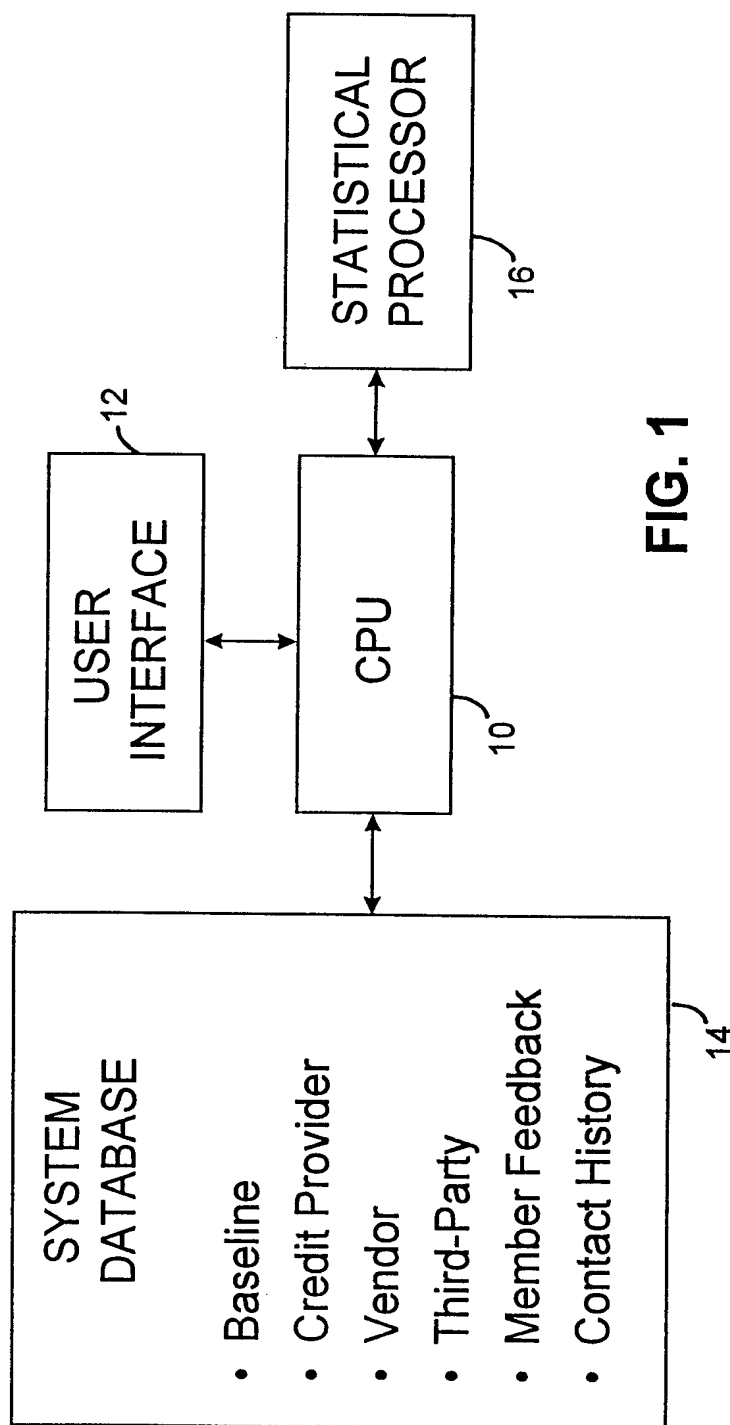
19. A method in accordance with claim 18 wherein:

said vendors are owners of the brand names; and

said consumer credit provider renders bills for membership offers accepted by the consumers.

20. A method in accordance with claim 11 comprising the further step of providing information indicative of past consumer responses to the offers to refine the future assignment of offers to consumers.

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**FIG. 1**

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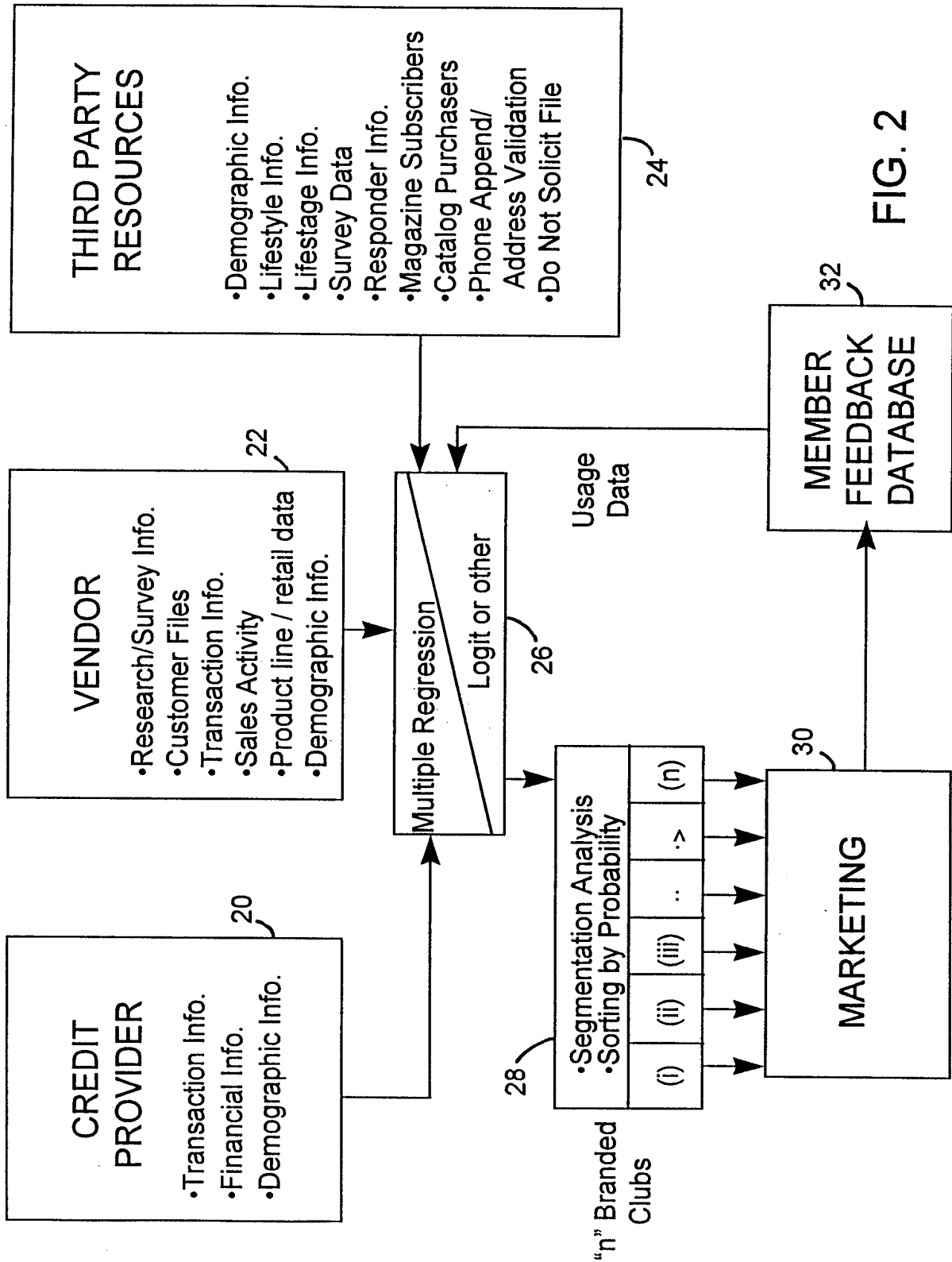


FIG. 2

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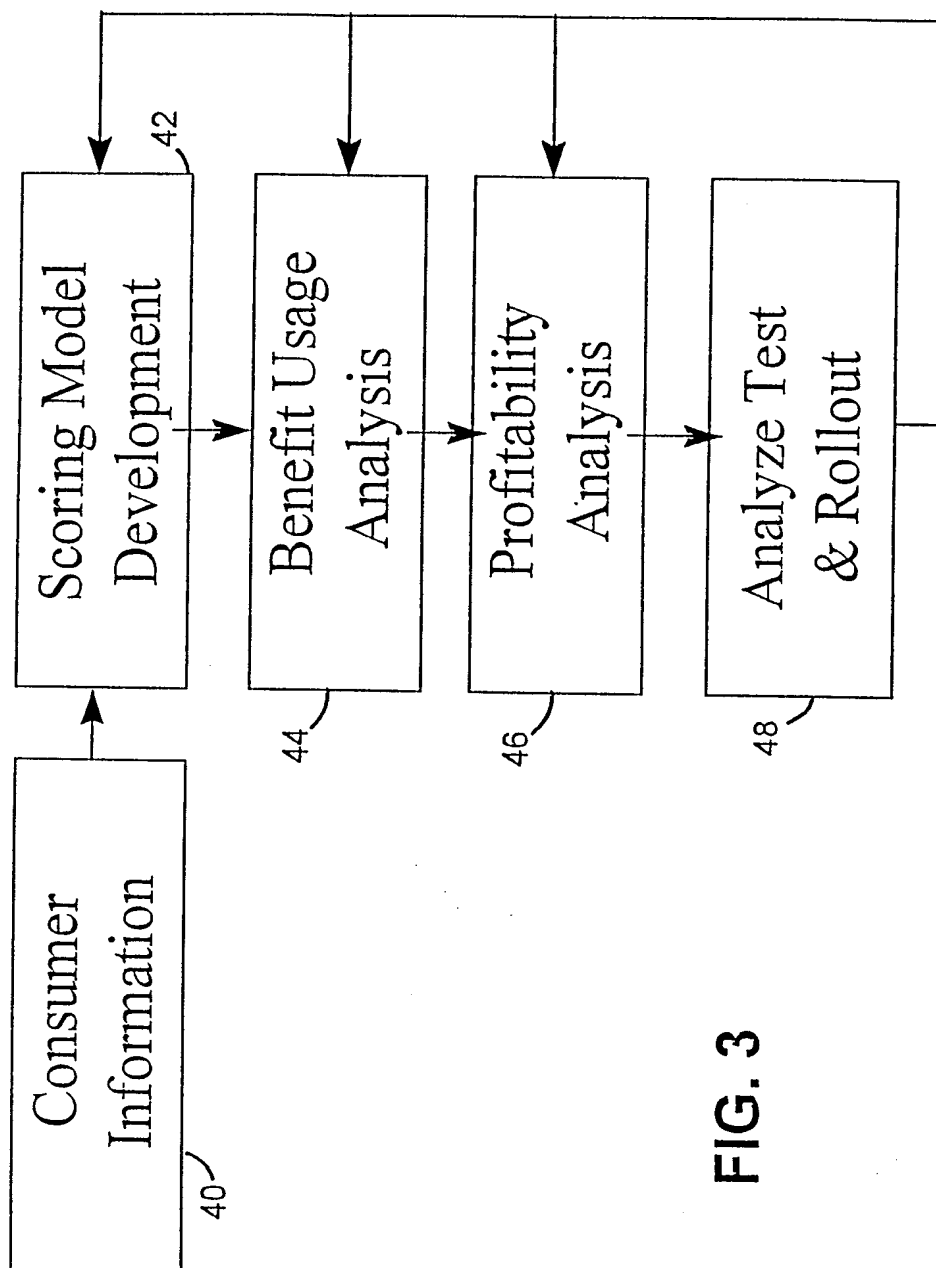


FIG. 3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US98/25810

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :G06F 17/60

US CL :705/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/14, 26

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS, IEE, WPO, DIALOG

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US RE34,915 A (NICHTBERGER ET AL.) 25 April 1995, see fig. 1 (16)(12); col. 8, lines 38-40; col. 4, lines 59-64; col. 7, lines 22-24; claim 21, col. 18, lines 30-33; col. 8, lines 38-40; col. 2, lines 22 and 25; col. 6, lines 7-12.	1-20



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
B earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Z* document member of the same patent family
O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

20 FEBRUARY 1999

Date of mailing of the international search report

19 APR 1999

Name and mailing address of the ISA/US
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INTERNATIONAL SEARCH REPORT**International application No.**
PCT/US98/25810**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	BRANDES, DIANE "Marketing Database Helps Build Business and Malls" Direct Marketing vol. 59, issue 3, July 1996, see page 1 of 3 last but one paragraph, lines 2-3; last paragraph last 3 lines; page 2 of 3 paragraph 6 and last paragraph lines 1-5.	1-20